BLOODLETTING

AS A

THERAPEUTIC RESOURCE IN OBSTETRIC MEDICINE.

BY

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The day following my return to the city, after my summer vacation, I was called to see a young married lady, in the sixth month of her first pregnancy, whose symptoms were such that I considered bloodletting indicated. Not being yet in full professional harness, I had no lancet in my pocket, and, as the residence of my patient was nearer the surgical-instrument shop at the corner of Broadway and Thirtieth Street than it was to my house, I went there to procure a lancet, where my demand was politely answered by an expression of regret that there was no lancet in the shop. The fact that a lancet was not to be obtained in the only shop for the manufacture and sale of surgical instruments within two miles and a half of the centre of residence of the population of this great

[1] Read before the N. Y. County Medical Society, December 5, 1870.

city struck me as a most amusing and, at the same time, as a most significant commentary on the change of practice which has taken place in the profession within the last thirty years. I presume that I should be correct in saying that our predecessors, in the same class and number of cases, bled more frequently in a month, perhaps in a week, than any of us now do in a year. In all the consultations in obstetric practice, with members of the profession during the last fifteen years, I cannot recollect a single instance where bloodletting had been resorted to, or even alluded to as a therapeutic measure to be discussed, except in a few cases of puerperal convulsions. Thirty years ago, the standard authors who guided the practice of obstetrics, both in Great Britain and in America, were Denman, Clark, Burns, Hamilton, Gooch, Collins, Ryan, Conquest, Lee, Ramsbotham, Rigby, Gordon, Hay, Armstrong, Dewees, Velpeau (translated by Meigs), Francis, and Meigs. I find, from a careful examination of all these authors, that bloodletting is recommended as a therapeutic measure by one or all of them, for the following conditions, which occur during gestation, parturition, and the puerperal state. During gestation, this measure was advised by many of the above authors, and was not objected to by any, for the following symptoms; namely, uterine irritation and uterine plethora, erratic pains, cramps and numbness of the inferior extremities, spasmodic cough, palpitation, pruritus, varices, inquietude, loss of sleep, solicitude and anxiety, headache, drowsiness, vertiginous complaints, hemiplegia, anasarcous swellings of the inferior extremities, to prevent abortion, and also to promote expulsion where abortion is inevitable.[1] Velpeau quotes from Mauriceau the case of one woman who was bled from the arm eighty-six times in one pregnancy, and from De la Motte another case, in which, during the latter months of pregnancy, the woman was bled eighty-seven times, and each of the women was delivered at full term of a fine, large child.

During parturition, bloodletting was inculcated for false pains where the patient is plethoric or with a feverish disposi-

[1] Francis recommends moderate venesection for the leucorrhœa of pregnancy. Francis's Denman. New York, 1825, p. 243.

tion, for irregular uterine contractions, when the pains are feeble and the patient has feverish symptoms, for rigidity from premature escape of the waters, for extreme rigidity of the os or of the perinæum, to overcome cicatricial adhesions, to prevent abdominal inflammations, and to prevent and cure convulsions.

In the puerperal state, it was urged as the most essential part of the treatment for the arrest and cure of all of the *post-partum* inflammations; as mammitis, metritis, phlebitis, and peritonitis, and by many it was taught to be the principal therapeutic resource in phlegmasia dolens, puerperal fever, and puerperal mania.

Now, as some one of the above large catalogue of symptoms was pretty sure to occur during gestation, parturition, or the puerperal period, it came to pass that formerly a large majority of women were bled some time during the above periods. I dare say that all of us in active obstetric practice now and then meet with a jolly, vigorous grandmother, who tells us with a good deal of complacency that she has had eight, ten, or twelve children, as the case may be, and that she was bled from the arm once, and sometimes twice, "with each of her children." If my recollection be not at fault, the general sentiment of the profession brought about a reaction from what had become almost a routine in practice, long before the change was apparent in the doctrines taught by the standard obstetric authors.

It is an important question, however, to decide whether the reaction in this point of practice did not go too far. Were our predecessors all wrong, and has the recent practice been all right? For my own part, within a few years past, I find that, as my clinical experience becomes more enlarged, I am gradually getting to bleed more frequently; and this change of practice has not arisen from any belief on my part in a change of what has been termed "the constitutional type" of the diseases incidental to child-bearing. My convictions, that this resource in practice had been too much neglected by myself and others, had been progressively growing for some years, when they received a new impetus from reading a paper by one of the most original investigators and philosophical observers now living,

in England. I refer to the Introductory Address before the Medical Society of London,[1] by the President, Dr. Benjamin W. Richardson, "On Bloodletting as a Point of Scientific Practice." This paper is so full of thoughtful and practical suggestion, that I have been surprised that it has not been generally copied by the medical journals in this country. Whether the views of the author be accepted in full or not, no man in active practice can read this paper who will not find himself interested and instructed by its perusal.

I purpose in the following paper to study bloodletting as a remedy, exclusively in obstetric practice. It was in obstetrics that this measure was formerly resorted to the most frequently, and was probably carried to the greatest extreme, and perhaps it may be that now in obstetrics it receives the most unmerited neglect.

I shall endeavor to appreciate the true value of this resource, in the diseases of pregnancy, the complications of labor, and the puerperal diseases.

Diseases of Pregnancy.—The doctrine of plethora was the dominant idea thirty years ago, in explanation of many of the most striking symptoms which occur during gestation. The vertigo, the dimness of vision, ringing in the ears, sudden flushings of the face, fulness of the head with somnolence, were regarded as symptoms of cerebral congestion, the consequence of general plethora, and bloodletting was regarded as the best means of overcoming these symptoms. To Cazeaux belongs the chief merit of calling attention to the fact that the most frequent cause of those functional disorders of pregnant women, which had hitherto been attributed to plethora, was really due to an impoverished condition of the blood. No doubt, many before had noticed that the symptoms arising from hydræmia and those due to plethora were identical, and Andral had previously explained these coincidences by observing that if the mere passage of too great an amount of corpuscles through the vessels of the brain appears to account sufficiently for the cerebral disorders witnessed in plethora, it follows that too small an amount of corpuscles traversing the same vessels

[1] *The Practitioner*, edited by Francis E. Anstie, M. D., F. R. C. P. November, 1868. Macmillan & Co., London.

will produce similar disorders; so that too great or too small an amount of corpuscles deranges certain actions of the brain in the same manner. Cazeaux's views were confirmed by the general experience of the profession as to the happy effects of tonic treatment in the majority of cases. Hence it may have resulted that real plethora has been sometimes overlooked. We occasionally see those who have not been remarkable for vigorous health, and who have been accustomed to menstruate freely, exhibit a wonderful renovation of functional activity during a first pregnancy, gaining flesh rapidly, and in such, it may occur that real plethora may follow to such a degree as to jeopardize the continuance of the pregnancy if not the life of the woman. In these cases the fœtal circulation becomes oppressed in consequence of the troubles of the maternal circulation, and the appearance of the motions of the fœtus are retarded, if they have not yet been perceived, or they become weaker, diminish in frequency, and may cease altogether. That this is the result of local congestion is demonstrated by the prompt reappearance of the motions of the fœtus after the mother has been subjected to a moderate loss of blood. Even in hydræmia, there may be an excess in the quantity of the blood, a kind of serous plethora, resulting in great disturbance of the circulation, and local congestions, which will be overcome by moderate venesection, followed by a more nutritious animal diet and the use of iron and other tonics. Of these local congestions, I shall allude a little more in detail to two of the more frequent and important; namely, uterine and renal congestion.

Uterine congestions, Cazeaux remarks, and my own experience is the same, are witnessed most frequently in feeble and anæmic women. He observes, they almost always appear at the menstrual periods, as though the monthly periodicity excited at these times a more active vitality in the uterus. The woman complains of tension, of swelling of the abdomen, of a feeling of weight in the pelvis, the groins, and the upper part of the thighs. She also soon suffers pain in the region of the kidneys and in the loins. If the proper measures be not employed, the vascular congestion, and the pressure upon the uterine walls resulting from it, irritate the organ. Slight con-

tractions occur; sometimes even a little blood flows from the vulva, and announces a threatened abortion. These symptoms are almost always accompanied with marked vesical tenesmus. If these symptoms do not disappear under the use of revulsives, diuretics, and moderate catharsis, I believe bleeding to the extent of a few ounces to be most useful, followed by the use of such medicines as improve the condition of the blood, particularly the chlorate of potash and the preparations of iron.

Of renal congestions I will remark, it is only within the past thirty years that it has been understood by the profession generally that, in some cases of apparent cerebral congestion, the primary arrest of circulation commenced in the kidneys. This condition is most emphatically marked in the temporary albuminuria of pregnancy. Within a few years I have had a success in warding off the danger attending this condition which culminates in puerperal convulsions, by venesection proportioned in amount to the urgency of the symptoms, which I have never before attained by other prophylactic means. On the 15th of last month, I saw with Dr. Cheesman a lady, the mother of several children, in the eighth month of pregnancy, who was awakened early in the morning by a severe pain in her head, and almost immediately was seized with a violent convulsion, followed by two others, after a short interval in which she remained in a comatose state. I took from the arm about thirty ounces of blood; after which she recovered in a great measure her consciousness. Elaterium was then given until very free catharsis was induced. As soon as any urine could be obtained it was examined by Dr. Cheesman, and found to be loaded with albumen. During the day she subsequently had four more convulsions. Following the action of the cathartic, the citrate of potash was administered in half-drachm doses every third hour. After a few days she perfectly recovered, and all trace of albumen disappeared from the urine. At my last examination I was most happy to hear very distinctly the sounds of the fœtal heart, and at the present time gestation appears to be going on favorably in every respect.

The same day on which the case just related occurred, I saw, with Drs. Sabine, Geo. A. Peters, and McLane, a most

melancholy but instructive case; a primipara in uræmic coma, a few hours after delivery. Two or three days before labor came on, she began to complain of fixed pain at the fundus uteri, which was not accompanied by uterine contractions, and which did not yield to the measures which had been resorted to for relief. The labor was not marked by any very peculiar symptoms, except that the patient was feeble, and delivery was delayed, so that it was deemed best to terminate it by the use of the forceps, when a dead child was delivered. There was no unusual hæmorrhage following the removal of the placenta, but an old clot, as large as a man's hand, was found attached to its uterine surface, with several apoplectic deposits in its substance. There had been no external hæmorrhage previous to the delivery, and no unusual loss of blood followed. After the delivery, she remained very feeble, gradually became comatose, and died within three hours after I saw her. Very little urine could be drawn from the bladder, and the little that was obtained was found to be highly albuminous. No symptoms leading to a suspicion of renal complication had presented themselves to her attending physician previous to her final sickness. In this case it would seem as if Nature had made an unsuccessful attempt to relieve local congestion and to supplement defective action of the kidneys by bleeding. It is probable that the severe pain at the fundus of the uterus, which occurred before uterine contractions came on, was due to the effusion of blood between the uterus and the placenta.

It has seemed to me that there is some liability to err in the neglect of bloodletting, from the feeling that this measure should never be resorted to unless the patient is in a sthenic condition. But some of the most striking instances of its usefulness have occurred under my observation where the patient was extremely anæmic. In 1851, I was called to see a lady near the end of her first pregnancy. She was sitting in a chair, breathing with the greatest difficulty; her emaciated face was livid, and covered with large drops of perspiration, and the action of the heart was most tumultuous and labored. The danger of immediate death seemed so imminent, that I did not stop to make any further examination, but as speedily

as possible I opened a vein in her arm. While anxiously watching the effect of the bleeding, with my back to the door, I heard no step entering the room, until the well-known raucous voice of her attending physician gave me the encouraging salutation of, "Well done, good and faithful servant," and Dr. Francis stood by my side. After taking away about sixteen ounces of blood, the patient was relieved of all of her distressing symptoms. Dr. Francis subsequently told me that she remained perfectly comfortable for two days after this attack, when labor came on suddenly. While he was calling upon her, and just as she answered that she was very well, the membranes ruptured, and she discharged the most enormous quantity of waters that he had ever witnessed. To quote his own words, "She must have discharged a tubful, Sir, for the room was flooded." She was soon delivered, without much pain, of a dead hydrocephalic fœtus. It is my belief that if the pulmonary œdema and accumulation of blood in the right cavities of the heart had not at once been relieved by the abstraction of blood, this lady would have died.

Parturition.—Bloodletting is now rarely used as a means of removing the various causes which retard delivery. In the warm douche, belladonna, and chloroform, we have more efficient means of overcoming rigidity of the soft tissues than can be secured by venesection. It is chiefly in cases of threatened or developed convulsions during labor that it becomes a remedy of the greatest importance. It is probable that formerly, when the pathology of this fearful complication of labor was imperfectly understood, this agent was used too indiscriminately, and sometimes pushed too far. In these cases, the result to be secured should be clearly defined. The object of the bloodletting is to cure the spinal disturbance, and to prevent the cerebral disease which terminates in apoplexy. It is a means of the greatest value.

1. Where there is great fulness of the vascular system, as it then becomes a powerful sedative of spinal action. As I remarked in another paper,[1] where convulsions are threatened, or result from stimulation of the spinal system by excess of

[1] Treatment of Puerperal Convulsions. Transactions of the New York Academy of Medicine, December 5, 1855, vol. i., p. 281.

blood or mechanical pressure of blood on portions of the brain, or from counter-pressure of the distended brain upon the medulla oblongata, bloodletting alone is often sufficient to subdue the disease, while it is equally important in preserving the brain from injury due to the convulsion.

2. It is of cardinal importance, where convulsions are threatened or result from uræmia. I fully concur with Dr. Richardson's views, that in cases of uræmic poisoning, when the coma is fully developed, the patient is unconscious, the skin hot, the convulsion strong, and the suppression of urine nearly perfect, there is no remedy so swift, so sure, so useful, as the lancet. To blister, to purge in such cases, is trifling with death. To bleed is to remove tension from the brain, to relieve congestion of lung and set the breathing free, to remove pressure from the laboring heart, and to ease the congested kidney of the load that embarrasses it. These are great points gained, but there is another greater, when we take away blood charged with the active narcotic poison, urea, we for the moment actually supplement the kidney, and do its office. Dr. Richardson says that experiments have shown that of two animals, each with the function of one kidney suppressed, one will die if left alone, while the other will recover, if, when the coma and convulsion of uræmia appear, there be abstraction of blood.

Puerperal Diseases.—As regards the *post-partum* inflammations, I would remark that the whole doctrine of inflammation is now in a transition state of doubt. Many points in regard to the real nature of inflammation are still unsettled. The therapeutic indications are to prevent, or to arrest the progress, or to remove the results, of the inflammatory process. That bloodletting, in certain conditions of the system, may be of service in fulfilling one or all of these indications, is, I presume, even now generally believed by the profession. But its exact value in the treatment of inflammation is by no means determined. We have learned that we have other expedients more safe and quite as efficient. I have not for many years resorted to venesection in the treatment of any of the *post-partum* inflammations, although I have sometimes doubted whether I have not been wrong in neglecting it. I often

recall one case with a pang of regret. In December, 1859, I attended a very beautiful and interesting lady in Brooklyn, in her first confinement. During her pregnancy she was in excellent health, but gained greatly in flesh, with so much appearance of vascular fulness that, by my advice, she abstained from meat during the last four weeks of gestation. Her labor was severe and long, but terminated happily by the use of the forceps, with the birth of a living girl. The fourth day after confinement she was attacked by metro-peritonitis of a most acute and severe type. A violent delirium came on. The urine, which before had shown no trace of albumen, now became highly albuminous,[1] and the secretion of urine very scanty, and, although I had the valuable assistance of my friend, Dr. Horatio S. Smith, of Brooklyn, the case terminated fatally, I think the twelfth day after confinement. In reflecting on this case, I have often deeply regretted that I had not bled this patient either before her confinement or when the attack of metro-peritonitis came on, as she lost very little blood during labor.

I have often asked myself whether, from our fear of *post-partum* hæmorrhage, we may not have sometimes carried too far our precautionary measures to secure the immediate and permanent contractions of the uterus. I remember, some years ago, that I was forcibly impressed by an incidental remark on this point by my friend, Dr. Peaslee. In reporting and commenting on a case of "Amputation at Shoulder-Joint," he observes that, "in a perfectly healthy and vigorous patient as much blood should be lost at least as is constantly circulating in the limb before its removal; otherwise the patient is left in a state of actual plethora, to some extent, in consequence of the operation—a state not to be desired, certainly, where still other causes predisposing to inflammation exist." After giving his reasons for this opinion, he adds: "Nor is this principle less important in obstetrics than in surgery. The perfectly healthy (and generally (?) somewhat plethoric) parturient female should lose from one to two pounds of blood, at least, in parturition, in order to be in the best possible condition for convalescence with-

[1] *Vide* Clinical Lecture on Puerperal Convulsions, by the writer—*The Medical Record*, New York, 1868, vol. iii., p. 415.

out accidents."[1] Although I cannot approve of the above proposition as a general truth applicable to parturient women, I should accept it as true of an exceptional number. As regards bloodletting in puerperal fever, I have formally expressed my views on another occasion,[2] and the additional experience of thirteen years in Bellevue Hospital and in private practice has not materially modified my sentiments on this point.

In certain very rare forms of puerperal mania, bloodletting may be of the greatest service. A large majority of these cases are undoubtedly associated with or result from defective nutrition and nervous exhaustion. The following, however, is an exceptional case: In February, 1868, I was sent for to visit a young lady the thirteenth day after her confinement. Her puerperal convalescence had been so free from all unpleasant symptoms that I had ceased to visit her. I found her gloomy and taciturn, a very marked change from her usual temperament, complaining of nothing, and refusing to answer any questions. The nurse informed me that the first symptom, which had occurred a few hours before, was a complaint of pain in one of her breasts, and a refusal to nurse her child, which she had been very fond of doing. One breast was somewhat tumefied and evidently painful; her pulse was somewhat tense and quickened. The axillary temperature was 103° Fahr. There had been no chill. On visiting her the next morning, I found that she had not slept a moment, that she had not nursed her child, or permitted any thing to be done to her breasts, or taken one drop of drink, one mouthful of food or a particle of medicine. She was now beginning to talk wildly and rapidly, without noticing any remark that was made to her. During the day I visited her very frequently, and at each visit I found her condition becoming worse. In the night following I found her face highly flushed, her eyes red, and she had become very violent, with an astonishing display of muscular power. She would tear off her clothes, and scream

[1] Peaslee on Amputation at Shoulder-Joint—*The New York Journal of Medicine*, May, 1853, p. 304.

[2] Discussion on Puerperal Fever, before the New York Academy of Medicine. *Vide* New York Medical Journal, and the American Medical Monthly, November, 1857, and the same Journals, November, 1858.

incessantly, with a constant repetition of certain phrases, in such tones, and with such a "damnable iteration," as almost to drive every one crazy who heard her. With great difficulty her husband, her brother, and the nurse, held her, while I opened a vein in the arm. As the blood flowed, at first scattered generally around the room and on the persons of those of us about her, she gradually became more quiet, sank down on the bed, and fell into a sound sleep, while I was bandaging the arm. Nearly five hours after, she awoke, at once asked for her baby to put to the breast, and she was perfectly cured. After this, she did not have a single symptom of disease, and her convalescence was rapid. We estimated the quantity of blood taken at about fifty ounces, although so much was lost at first that we could not judge very accurately. In no case have I ever seen the effects of medical treatment so promptly and so happily curative.

I hope that, if I have not exhausted my subject, I have not exhausted your patience. It has seemed to me timely that the attention of the profession should be recalled to the effects of a remedy which has fallen greatly into disuse, but which, to quote again from Dr. Richardson, is one of the most scientific we have at our command, and one which produces effects as patent to the eye, and convincing to the reason, as any known remedial measure.